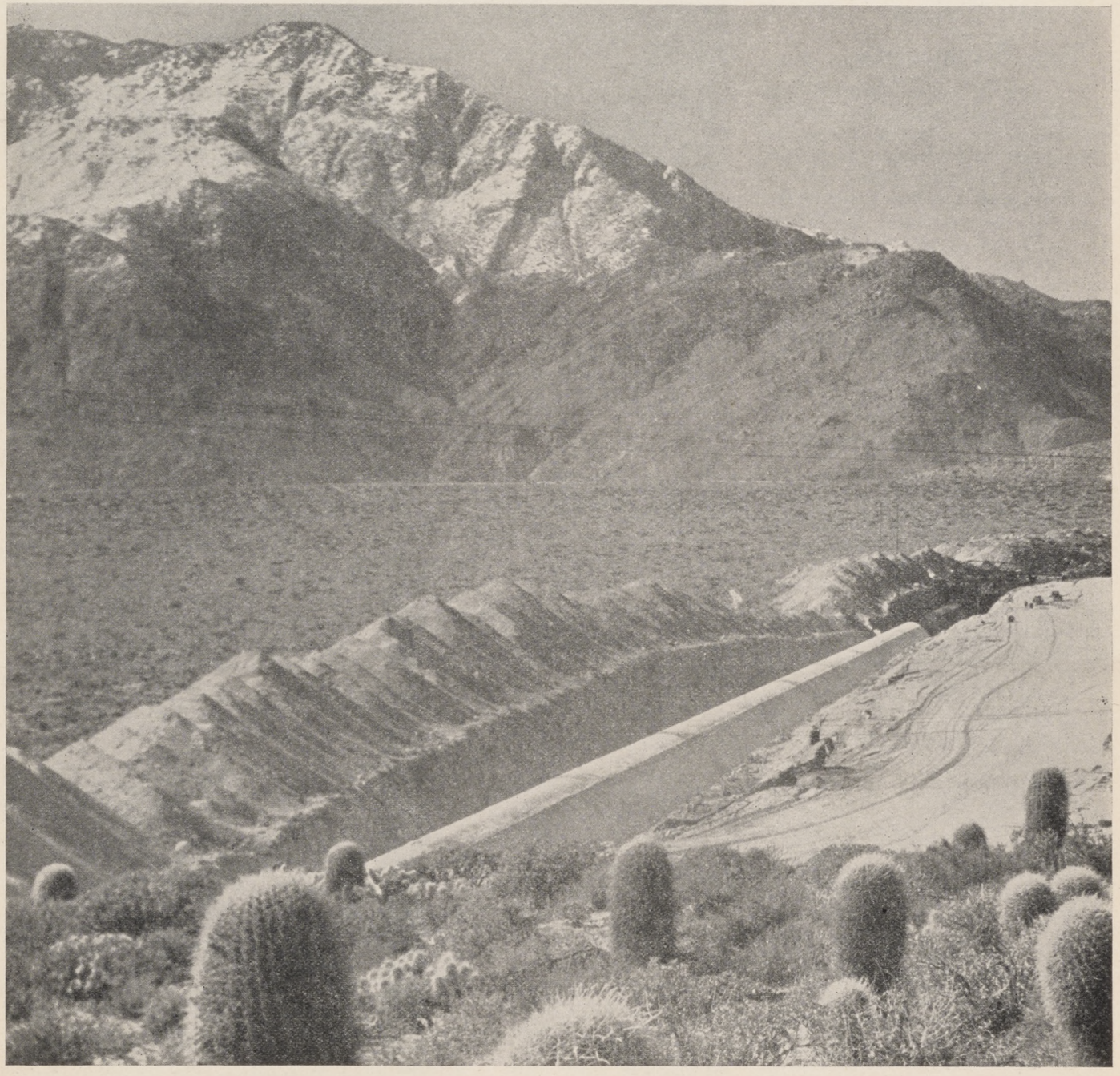
• COLORADO RIVER •

AQUEDUCT NEWS

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Vol. IV. JANUARY 10, 1937 No. 3



Conduit construction on Schedule 18 at the upper end of the Coachella Valley with snow covered Mt. San Jacinto in the background. This section is located between the West Coachella and the Whitewater tunnels.

• COLORADO RIVER •
AQUEDUCT NEWS
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
LOS ANGELES, CALIFORNIA

Published twice monthly in the interest of Field and Office Workers on the Colorado River Aqueduct, and for the information of all other citizens of the Metropolitan Water District.

Vol. IV January 10, 1937 No. 3

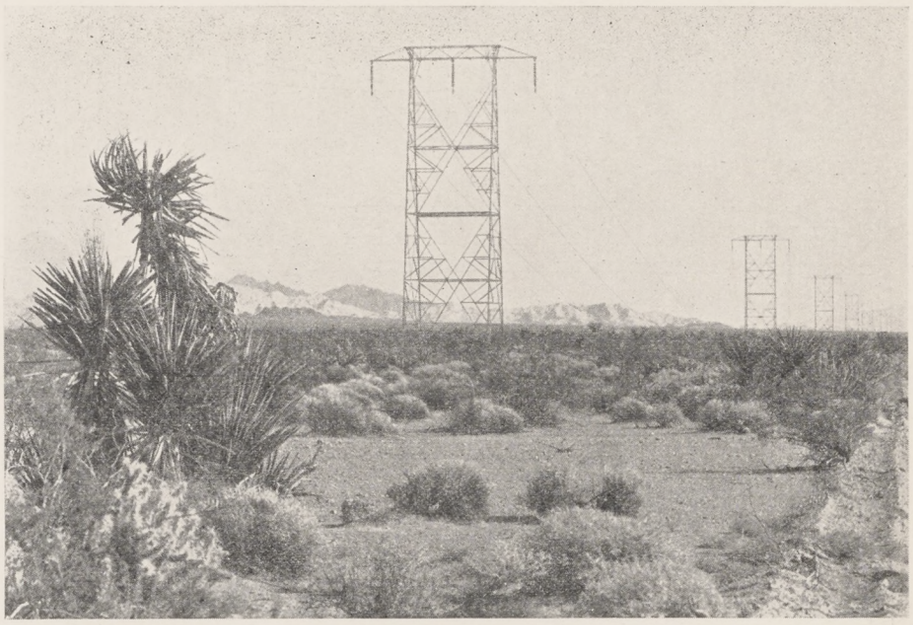
Death Takes Mrs. Weymouth

Mrs. Maude Lane Weymouth, wife of the General Manager, died Saturday morning, January 2, at the Hotel Dieu Hospital in New Orleans. Mrs. Weymouth was suddenly stricken with an acute attack of pneumonia while enroute with Mr. Weymouth to Washington, D. C. She was taken from the train in New Orleans and later to the hospital on Tuesday, December 29. Rallying temporarily on Thursday, Mrs. Weymouth later suffered a relapse and died at six o'clock on the morning of January 2.

Mr. and Mrs. Weymouth were married on December 3, 1900. Before her marriage she was Miss Maude Lane of Orono, Maine. After their marriage Mrs. Weymouth accompanied Mr. Weymouth to many parts of the United States and to Mexico in connection with the various engineering projects with which he has been associated. They have resided in Los Angeles since 1929 when Mr. Weymouth assumed his duties as Chief Engineer of the Colorado River Aqueduct project.

Mr. Weymouth returned to Los Angeles with Mrs. Weymouth's body late Tuesday afternoon, January 5. Rosary services were recited at 8:00 P. M. Tuesday evening, and Mass was conducted by the Reverend Edward R. Kirk from St. Basil's Church in Los Angeles at 10:00 A. M., Wednesday, January 6. Pallbearers were J. L. Burkholder, Julian Hinds, James H. Howard, J. M. Luney, Lester V. Branch, and R. B. Diemer. Honorary pallbearers were the members of the Board of Directors, and James Munn. Interment service was attended only by members of the family.

The Los Angeles offices of the District were closed on Wednesday morning in respect to Mrs. Weymouth, and so that employees might attend the funeral services.



DISTRICT TRANSMISSION LINE

Stalking majestically across the desert from horizon to horizon, this line of giants will carry electric energy at 230,000 volts from Boulder Dam to the five Aqueduct pumping plants.

Directory

BOARD OF DIRECTORS

W. P. Whitsett, Chairman
Franklin Thomas, Vice-Chairman
S. H. Finley, Secretary
Anaheim.....E. P. Hapgood
Beverly Hills.....Arthur Taylor
Burbank.....J. L. Norwood
Compton.....Warren W. Butler
Fullerton .....Walter Humphreys
Glendale .....Bernard Brennan
Long Beach.....William M. Cook
Los Angeles .....I. Eisner
Los Angeles .....Perry H. Greer
Los Angeles .....Otto J. Emme
Los Angeles .....D. W. Pontius
Los Angeles ....John R. Richards
Los Angeles....Victor H. Rossetti
Los Angeles .....W. P. Whitsett
Pasadena .....Franklin Thomas
San Marino.....J. H. Ramboz
Santa Ana.....S. H. Finley
Santa Monica, Edmond S. Gillette
Torrance .....Charles T. Rippy
Charles H. Toll, Treasurer
D. W. Pontius, Controller

GENERAL STAFF

General Manager and Chief Engineer.....F. E. Weymouth
Asst. Gen. Mgr.....J. L. Burkholder
Asst. Chief Engineer.....Julian Hinds
General Counsel .....James H. Howard
Asst. Gen. Counsel.....Arthur A. Weber
Asst. Controller.....J. M. Luney
General Supt.....James Munn
Chief Elec. Engineer.....J. M. Gaylord
Asst. to Gen. Mgr.....Don J. Kinsey
Secy. to Gen. Mgr.....Elisabeth von Hagen

DIVISION ENGINEERS

Divisions 1 & 2....W. E. Whittier
Divisions 2 & 3.....John Stearns
Division 4.....R. C. Booth
Divisions 5 & 6.....J. B. Bond
Distribution.....R. B. Diemer
Transmission.....Robert N. Allen

SUPERINTENDENTS

(Main Aqueduct Tunnels)

Colorado River, Copper Basin and Whipple Mt. Tunnels, Walsh Construction Co., W. A. Huntington and L. M. Ramey, Tunnel Supts.

Coxcomb and East Iron Mt. Tunnels, Winston Bros., R. V. Johnson, Gen. Supt.

Iron Mt. Tunnel, West Portal, Utah Construction Co., Ben Arp, Gen. Supt.

East Eagle Mt. Tunnel and West Eagle Mt. Tunnel, east portion, Broderick & Gordon, John Will, Gen. Supt.

Coachella Tunnel, Dist. Force Acct., R. C. Booth, Gen. Supt.

East Coachella Tunnel and 1000 Palms Tunnel, Concrete, V. T. Davis, Supt., J. C. Fischer, Guy Taylor, Gen. Foremen.

All Coachella Siphon Construction, M. Hjalmarson, Supt.

West Coachella Tunnels and Conduits, Concrete, Edwin Noon, Supt.

San Jacinto Tunnel, District Force Acct., B. C. Leadbetter, Gen. Supt.; A. L. Simpson, John Austin and C. E. Sides, Tunnel Supts.; Chas. F. Thomas, Jr., Supt.

Valverde Tunnel ,Dravo Contr. Co., R. W. Remp, Gen. Supt.

(Distribution Tunnels)

Monrovia Tunnels Nos. 1, 2 and 3, West Construction Co., H. E. Carleton, Gen. Supt.; O. V. Humason, Peter Brisbols and Luther Dennis, Tunnel Supts.

Pasadena Tunnel, San Rafael Tunnels Nos. 1 and 2, and Monrovia Tunnel No. 4, L. E. Dixon Co., Bent Bros., Inc., and Johnson, Inc., S. D. Hackley and W. N. Evans, Supts.

(Canal, Siphon, Conduit)

Schedules Nos. 1, 1A, 1B, 10, 10A, 10B, 11, 11A, 11B, 11C, 13, 13A, and 13B, Aqueduct Construction Co., S. T. Corfield, Gen. Supt.; Charles Harlowe, Jr., Excav. Supt.

Schedules Nos. 2, 2A, 2B, 3, 3A, 3B, 7, and 7A, Barrett & Hilp and Macco Corp.; H. W. McKinley, Supt.

Schedules Nos. 4, 4A, 5, and 5A, Jahn & Bressi Construction Co., Joseph Muscolo, Gen. Supt.; Dominick Bressi, Asst. Gen Supt.

Schedules Nos. 6, 8, 8A, and 8B, Clyde W. Wood and M. J. Bevanda, A. F. Weesner, Gen. Supt.

Schedules Nos. 9, 9A, 9B, and 9C, The Utah Construction Co., Ben Arp, Gen. Supt.

Schedules Nos. 12 and 12A, Three Companies, Inc., John Will, Supt.

Schedules Nos. 14, 15, and 16, Thompson - Starrett Co., Inc., Rodney Smith, Gen. Supt.; William Hayes, Excav. Supt.

Schedule 17, Dist. Force Acct., H. Hjalmarson, Supt., (Fan Hill).

Schedules Nos. 18, 19, and 20, J. F. Shea Co., Inc., J. G. Shea, Gen. Mgr.; H. F. Rennebohm, Supt.

Schedules Nos. 20A, 20B, 20C, 21, 22, and 23, The Griffith Co., Harry Davis, Supt.

(Distribution Pipe Line)

Schedules No. 4P and 5P, American Concrete & Steel Pipe Co., Wm. A. Whiting, Gen Supt.; D. H. Rankin, Plant Supt. and Const. Supt.

Schedules 6P and 7P, J. F. Shea Co., Inc., J. G. Shea, Gen. Mgr.; Ed. H. Shea, Gen. Supt.

Schedules 8P, United Concrete Pipe Corp., John Huber, Plant Supt.; Charles Johnston, Const. Supt.

Schedules 2B and 2S, Western Pipe & Steel Co., L. L. White, Supt.

(Dams)

Cajalco dam, The Griffith Co., Harry Davis, Gen. Supt.

Parker dam, Six Cos., Inc., Frank Crowe, Gen, Supt.; E. A. Moritz, Eng. in charge.

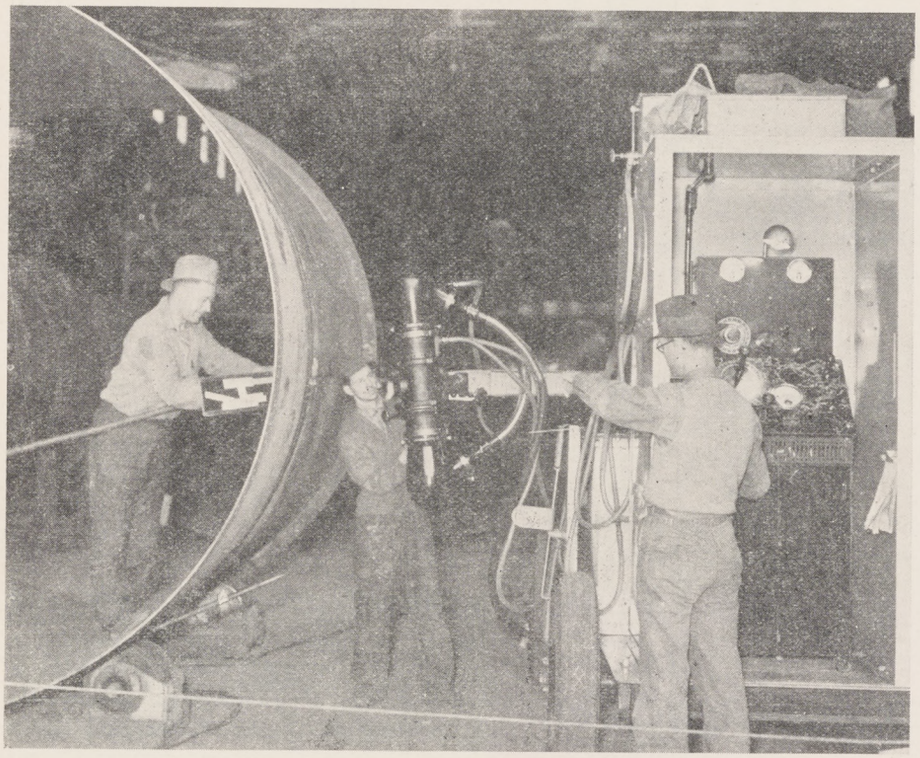
(Pumping Plants)

Intake and Gene, Winston Bros. and Crowell, R. A. Crowell, Supt., F. T. Hillman, Engineer.

Iron Mountain, Wood and Bevanda; Grant Miner, Supt.

Eagle Mountain, L. E. Dixon Co.; S. H. Strohacker, Supt.

Hayfield, Dixon and Case; Crawford Strohacker, Supt.



PHOTOGRAPHY THROUGH SOLID STEEL

Setting up the X-Ray machine in the Western Pipe and Steel plant to take pictures of the welds on one of the M.W.D. pumping plant delivery line sections. The X-Rays are projected through an aperture in the center of the "gun", being moved into place by the man in the center, and are recorded on the photographic film being placed on the inside of the pipe. Cracks or other defects in welding otherwise undetectable are thus picked up by the X-Ray process. The machine will project rays through 2 inches of solid steel, its tubes operating on 100,000 volts, with a maximum capacity of 150,000 volts.

ARCH COMPLETED IN WEST COACHELLAS

Pouring of tunnel arch lining in the West Coachella tunnels was completed by the M.W.D. force account crews on Tuesday, December 22. The total length of this work amounts to 81,537 lineal feet, and is made up of the following tunnels:

1000 Palms, Nos. 1 and 2; Wide Canyon, Nos. 1 and 2; Seven Palms; Long Canyon; Blind Canyon; and Morongo, Nos. 1 and 2. The longest of these is Seven Palms, being 16,730 feet in length.

BIDS OPENED FOR COPPER BASIN GATES

Bids were opened on January 5, 1937, for the furnishing of regulating gates and appurtenances for the Copper Basin reservoir of the main aqueduct.

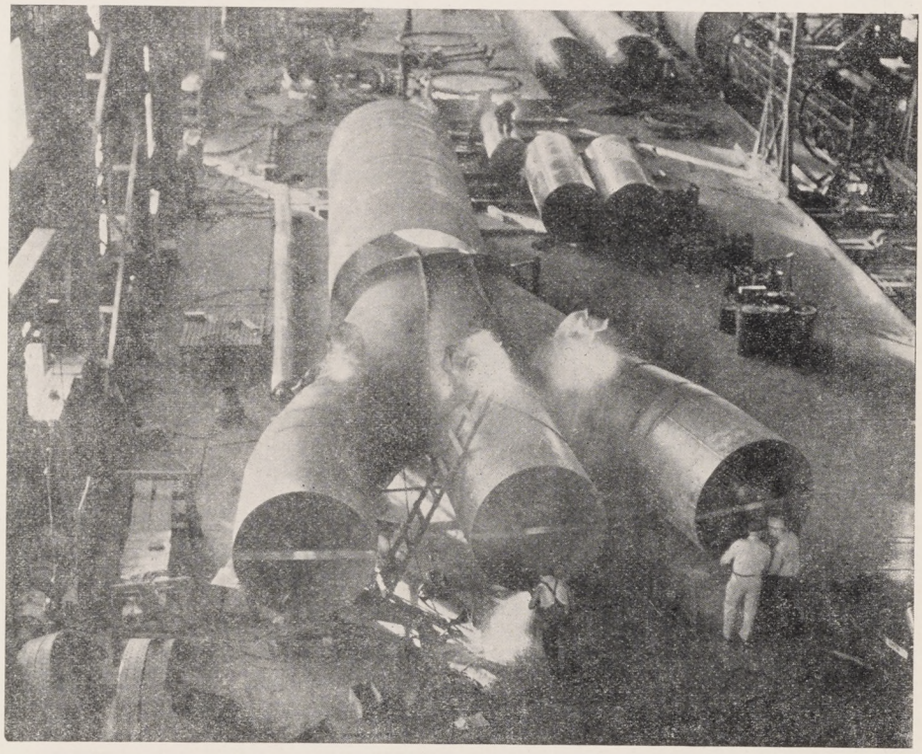
Low bidder was the Joshua Hendry Iron Works of San Francisco, who submitted a bid of $19,685 for furnishing the required equipment.

The specifications call for furnishing three 6½ by 10-foot gates. Operated by electrically driven motors, the three gates will be vertical regulating slide gates, and will be installed in the outlet structure of the reservoir. The estimated weight of the three gates and their operating mechanism is 145,000 pounds.

PIPE FABRICATION FOR NEW SCHEDULE STARTED

On Sunday, January 3, the United Concrete Pipe Corporation started the fabrication of 9-ft. 8-in. inside diameter precast concrete pipe to be used on Schedule 10 of the distribution system. The work is under way at the pipe company's plant in Baldwin Park, where the 10-ft. 3-in. pipe for Schedule 8 was made.

Pipe laying on Schedule 8 was completed to the east portal of Monrovia tunnel No. 1 on December 24, with the exception of finishing joints, and pouring of the cast-in-place connecting sections. All of the pipe in this schedule, which is 24,525 feet in length, was placed in 6½ months at an average of 3,800 feet per month. The schedule included 2,031 sections of 12-foot length pipe, the balance of the footage being made up of cast-in-place structures. Charles Johnston is Construction Superintendent, and John Huber is Plant Superintendent for the contractor. R. J. "Red" Irvine is the District's senior placing inspector on the work.



Fabricating the steel "pants" at the Western Pipe and Steel plant to be used on the delivery lines at the Iron Mountain pumping plant. An illustration on page 6 shows a similar section installed in the field.

TUNNELS

December 1 to December 31, 1936

TUNNEL EXCAVATION (MILES)

	Completed	Remaining
Aqueduct	87.03	5.08
Distribution	15.62	0.59
Total	102.65	5.67

*TUNNEL LINING (MILES)

	Completed	Remaining
Aqueduct	73.01	19.10
Distribution	3.39	10.46
Total	76.40	29.56

*Arch considered to equal 0.9 completed section.

TUNNEL PROGRESS

CONTRACTOR	TUNNEL	LENGTH IN FEET	EXCAVATION IN FEET: NUMBER OF SHIFTS	AVERAGE PER SHIFT	THIS PERIOD	TOTAL TO DATE	REMAINING	LINING IN FEET: ARCH OR INVERT	NUMBER OF SHIFTS	AVERAGE PER SHIFT	THIS PERIOD	TOTAL TO DATE	REMAINING
AQUEDUCT—CONTRACT													
WALSH CONSTRUCTION CO.	COLORADO RIVER	5,482			Completed	5,482	0	Arch			0	5,475	7
								Invert			0	5,475	7
	COPPER BASIN NO. 1	705			Completed	705	0	Arch			0	696	9
								Invert			0	696	9
	COPPER BASIN NO. 2	11,568			Completed	11,568	0	Arch			0	11,568	0
								Invert			0	11,568	0
	WHIPPLE MOUNTAIN	(32,238)				(32,238)	(0)	Invert	37	429.2	16,251	16,251	15,987
	East from Adit	18,336			Completed	18,336	0	Arch			0	18,327	9
	West from Adit	13,902			Completed	13,902	0	Arch			0	13,902	0
WINSTON BROTHERS	IRON MT. (E. PORTION)	(23,645)				(23,645)	(0)						
	East from Shaft	9,902			Completed	9,902	0	Invert			0	9,902	0
								Arch			0	9,902	0
	West from Shaft	13,743			Completed	13,743	0	Invert			0	13,743	0
								Arch			0	13,743	0
UTAH CONSTRUCTION CO.	IRON MT. (W. PORTION)	16,208			Completed	16,208	0	Arch			0	16,208	0
								Invert			0	16,208	0
WINSTON BROTHERS	COXCOMB (From E. Portal)	17,795			Completed	17,795	0	Arch	72	79.0	5,687	5.727	12,068
								Invert				0	17,795
BRODERICK & GORDON	E. EAGLE (From W. Portal)	9,440			Completed	9,440	0	Arch	44	94.6	4,163	5,138	4,302
	W. EAGLE (E. PORTION)	(15,845)			Completed	(15,845)	(0)	Invert			0	0	(15.845)
	East from Adit	7,871				7,871	0	Arch			0	7,871	0
	West from Adit	7,974				7.974	0	Arch			0	7,974	0
	TOTALS Ft.	132,926				132,926	0	Arch	116	85.0	9,850	116,531	16,395
	Miles	(25.18)				(25.18)	0	Invert	37	439.2	16,251	73,843	59,083
AQUEDUCT — FORCE ACCOUNT													
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	EAST COACHELLA	(96,605)				(96,605)	0						
	East Portion	28,512			Completed	28,512	0	Arch			0	28,512	0
								Invert			0	28,129	383
	West Portion	68,093			Completed	68,093	0	Arch	69	61.3	4,232	55,371	12,722
								Invert			0	0	68,093
	1000 PALMS NO. 1 (From W.P.)	16,058						Arch			0	16,058	0
						16,058	0	Invert	19	416.3	7,909	7,909	8,149
	1000 PALMS NO. 2	3,838			Completed	3,838	0	Arch			0	3,838	0
								Invert				3,838	0
	WIDE CANYON NO. 1	14,305			Completed	14,305	0	Arch			0	14,305	0
								Invert			0	7,516	6,789
	WIDE CANYON NO. 2	848			Completed	848	0	Arch			0	848	0
	SEVEN PALMS (From E. Prtl)	4,810			Completed	4,810	0	Arch			0	16,730	0
	(From W. Prtl)	11,920				11,920							
	LONG CANYON	15,305			Completed	15,305	0	Invert	39	392.4	15,305	15,305	0
								Arch			0	15,305	0
	BLIND CANYON	6,836			Completed	6,836	0	Arch			0	6,836	0
								Invert	5	298.6	1,493	6,836	0
	MORONGO NO. 1	5,725			Completed	5,725	0	Arch	55	71.0	3,906	5,725	0
	MORONGO NO. 2	1,902			Completed	1902	0	Arch			0	1,892	10
	SAN JACINTO	(68,849)				(420,020)	(26,829)						
	Cabazon Shaft to East Portal	8,880			0	8,880	0						
	Cabazon to Lawrence	26,817	90	8.2	741	11.404	15,413						
	Cabazon Pioneer	18,119	90	8.0	716	2,901	15,218						
	Lawrence Adit	5,651	90	4.7	426	2,214	3,437						
	Potrero Pioneer	15,163	90	2.6	236	3,955	11,208						
	Potrero to Lawrence	17,670	90	5.8	520	6,254	11,416	Arch	77	92.5	7,120	10,580	58,269
	Potrero Shaft to West Portal	15,482			Completed	15,482	0	Invert	0	0	0	14,953	53,896
	TOTALS Ft.	247,001	180	7.0	1,257	220,172	26,829	Arch	201	75.9	15,258	176,000	71,001
	Miles	(46.78)			(0.24)	(41.70)	(5.08)	Invert	63	392.2	24,707	84,486	162,515
DISTRIBUTION—CONTRACT													
GRIFFITH CO.	CAJALCO OUTLET	2,439			Completed	2,439	0					0	2,439
WEST CONSTRUCTION CO.	MONROVIA NO. 1 (From W.P.)	7,868			Completed	7,868	0		9	22.2	200	7,796	0
	MONROVIA NO. 2 (From Jct.1)	940			Completed	940	0			Completed		856	0
	MONROVIA NO. 3	(32,105)			(709)	(30,924)	(1,181)		15	30.7	461	461	31,633
	East from Adit	11,340			Completed	11,340	0						
	West from Adit		60	4.5	271	5,913							
	From West Portal	20,765	82	5.3	438	13,671	1,181						
DIXON, BENT BROS. & JOHNSON	MONROVIA NO. 4 (From W.P.)	8,134	71	10.1	720	6,175	1,959					0	8,134
	PASADENA (From West Portal)	12.140			Completed	12.140	0		75	23.9	1,791	8,272	3,868
	SAN RAFAEL No. 1 (From W.P.)	4,047			Completed	4.047	0		39	73.3	518	518	3,510
	SAN RAFAEL No. 2 (From E.P.)	5,669			Completed	5,669	0					0	5,661
	TOTALS Ft.	73,342	213	6.7	1,429	70,202	3,140	Full Section	138	21.5	2,970	17,903	55,245
	Miles	13.89			(0.27)	(13.30)	(0.59)				(0.56)	(3.39)	(10.46)

COMPLETED TUNNELS

	CONTRACTOR	TUNNEL	Length in Miles	Work Started	Work Completed
AQUEDUCT	MORRISON-KNUDSEN CO.	Mecca Pass, No. 1, 2 & 3	1.13	7-17-33	2-10-35
	WEST CONSTRUCTION CO.	Whitewater Nos. 1 & 2	1.94	7-18-33	4-15-35
	SHOFNER & GORDON	Hayfield No. 2	1.03	7-8-33	7-27-35
	HAMILTON & GLEASON	Bernasconi	1.18	4-19-33	11-21-35
	J. F. SHEA CO., INC.	Cottonwood	3.81	6-14-33	12-29-35
	HUNKIN-CONKEY CON. CO.	Hayfield No. 1	1.84	10-21-33	1-9-36
	DIXON & BENT BROS.	W. Eagle—West Portion	2.02	9-8-33	3-12-36
	DRAVO CONTRACTING CO.	Valverde	7.20	6-7-33	10-18-36
		TOTALS	20.15		
DISTRIBUTION	J. F. SHEA CO., INC.	Sierra Madre	1.27	9-1-35	10-31-36
	DIXON, BENT BROS. & JOHNSON	Pasadena Extension	1.05	10-5-35	11-24-36
		TOTALS	2.32		

ON PROGRESS

CANAL, CONDUIT, SIPHON & PIPE LINES

December 13 to December 26, 1936

CANAL, CONDUIT AND SIPHON (MILES)

	Completed	Remaining
Excavation	128.67	17.00
Concrete	120.41	24.20
Back Fill	66.16	25.69

DISTRIBUTION PIPE LINE (MILES)

	Completed	Remaining
Excavation	22.16	23.85
Concrete	20.82	25.23
Back Fill	19.08	26.93

AQUEDUCT

SCHED. NO.	CONTRACTOR	FEATURES	Length In Feet	EXCAVATION—Feet			CONCRETE—Feet			BACKFILL—Feet		
				Period	To Date	Remain'g	Period	To Date	Remain'g	Period	To Date	Remain'g
1	AQUEDUCT CONSTR. CO.	Conduit and Siphons	22,025	0	22,025	0	0	22,025	0	0	22,025	0
2	BARRETT & HILP AND MACCO CORP.	Conduit and Siphons	30,569	0	29,314	1,255	0	24,584	5,985	0	22,400	8,169
3		Canal and Siphons	40,499	0	40,084	415	741	39,168	1,331	1,279	7,459	4,886
4	JAHN & BRESSI CONSTR. CO.	Canal and Siphons	53,218	0	53,218	0	0	53,218	0	0	1,992	1,083
6	WOOD AND BEVANDA	Siphon	15,521	0	15,521	0	0	15,521	0	0	13,043	2,478
7	BARRETT & HILP & MACCO CORP.	Canal and Conduit	27,707	0	27,707	0	0	27,707	0	0	12,170	0
8	WOOD AND BEVANDA	Canal and Siphons	49,339	0	49,339	0	0	49,339	0	0	7,090	800
9	UTAH CONSTRUCTION CO.	Canal, Conduit and Siphons	47,363	0	47,004	359	387	46,506	857	75	2,550	3,649
10	AQUEDUCT CONSTR. CO.	Canal and Siphons	44,505	0	44,505	0	0	44,505	0	0	3,594	1,256
11		Canal, Conduit and Siphons	44,003	2,563	36,609	7,394	4,486	14,851	29,152	0	2,670	7,653
12	THREE COMPANIES, INC.	Conduit and Siphons	32,977	60	29,702	3,275	0	24,663	8,314	0	23,030	9,947
13	AQUEDUCT CONSTR. CO	Canal, Conduit and Siphons	31,965	0	31,965	0	482	31,820	145	900	1,112	2,553
14	THOMPSON-STARRETT CO.	Conduit and Siphons	32,366	0	32,366	0	0	32,366	0	0	32,366	0
15		Conduit and Siphons	35,849	1,856	17,105	18,744	2,266	14,378	21,471	1,925	12,125	23,724
16		Conduit and Siphons	19,359	0	0	19,359	0	0	19,359	0	0	19,359
17	M. W. D.—FORCE ACCT.	Conduit and Siphons	21,950	166	21,449	501	774	20,608	1,342	1,364	19,127	2,823
18	J. F. SHEA CO., INC.	Conduit and Siphons	27,537	407	27,061	476	2,107	26,335	1,202	550	18,689	8,848
19	J .F. SHEA CO., INC.	Conduit and Siphons	37,364	0	0	37,364	0	0	37,364	0	0	37,364
20		Siphons	18,618	0	18,618	0	0	18,618	0	0	18,618	0
20 A & B	M. W. D.—FORCE ACCT.	Siphons	735	0	705	30	0	0	735	0	0	735
3	WINSTON BROS. CO. & WILLIAM C. CROWELL	Siphon (Gene Inlet)	1,877	0	1,850	27	0	1,794	83	0	1,478	320
4		Siphon (Copper Basin)	450	0	450	0	0	0	450	0	0	0
	TOTALS		635,796	5,052	546,040	89,756	11,243	508,006	127,790	6,093	221,538	135,647

DISTRIBUTION PIPE LINES

1	AMER. CONC. & STL. PIPE CO.	Precast Concrete Pipe	12,277	0	0	12,277	0	0	12,227	0	0	12,227
2	WESTERN PIPE & STL. CO.	Welded Steel Pipe	54,530	841	33,416	21,114	2,343	26,892	27,638	600	20,162	34,368
3	AMER. CONC & STL. PIPE CO.	Precast Concrete Pipe	20,124	0	0	20,124	0	0	20,124	0	0	20,124
4			25,867	0	25,867	0	0	25,867	0	0	25,867	0
5			24,895	2,148	16,725	8,170	2,229	16,592	8,303	2,208	15,368	9,527
6	J. F. SHEA CO., Inc.	Precast Concrete Pipe	27,348	1,830	16,499	10,849	1,888	16,441	10,907	1,950	15,984	11,364
7			30,044	0	0	30,044	0	0	30,044	0	0	30,044
8	UNITED CONC. PIPE CORP.	Precast Concrete Pipe	24,525	923	24,525	0	976	24,524	1	1,450	23,351	1,174
9			8,697	0	0	8,697	0	0	8,697	0	0	8,697
10			10,517	0	0	10,517	0	0	10,517	0	0	10,517
11			4,105	0	0	4,105	0	0	4,105	0	0	4,105
	TOTALS		242,929	5,742	117,032	125,897	7,436	109,691	133,238	6,208	100,732	142,197

Miscellaneous Construction

December 13 to December 26, 1936

AQUEDUCT PUMPING PLANTS AND APURTENANT WORKS

CONTRACTOR	FEATURES	EXCAVATION—Cu. Yds.				CONCRETE—Cu. Yds.				STEEL—Tons			
		Est. Quan.	Period	To Date	%	Est. Quan.	Period	To Date	%	Est. Quan.	Period	To Date	%
WINSTON BROS. CO. & WILLIAM C. CROWELL	Intake Plant	104,514	400	104,514	100.	18,145	1,883	5,200	28.7	1,712	101.5	110.6	6.5
	Gene Plant	92,600	0	89,130	96.3	13,370	889	8,068	60.3	2,052	28.7	446.8	21.8
WOOD AND BEVANDA	Iron Mt. Plant	358,700	1,849	246,838	68.8	19,897	727	9,048	45.5	1,707	57.4	519.9	30.4
L. E. DIXON CO.	Eagle Plant	227,695	4,923	225,233	98.9	21,122	142	1,239	5.9	2,160	0	39.2	1.8
L. E. Dixon & Case Const. Co.	Hayfield Plant	328,900	31,500	205,633	62.5	32,319	0	0		2,738	0	0	0
	TOTALS		38,672	871,348			3,641	23,547			187.6	1,116.5	

PARKER RESERVOIR—SIX COMPANIES, INC.

FEATURES	Est. Quan.	Period	To Date	Percent
Diversion Tunnels—Excav.	3,463 Ft.	0	3,463	100
Diversion Tunnels—Concrete	3,363	0	3,363	100
Dam, Forebay, etc., Exc.	2,024,700 C.Y.	145,900	769,029	38.0
Dam Concrete	260,000 C.Y.	0	0	0

CAJALCO RESERVOIR—GRIFFITH COMPANY

FEATURES	Est. Quan.	Period	To Date	Percent
Diversion Tunnel	2,000 Ft.	0	2,000	100
Dam & Dike Excavation	651,000 C.Y.	1,500	475,005	73.0
Dike Fill	4,182,000 C.Y.	79,700	3,433,700	82.1
Dam Fill	3,410,000 C.Y.	0	909,900	26.7

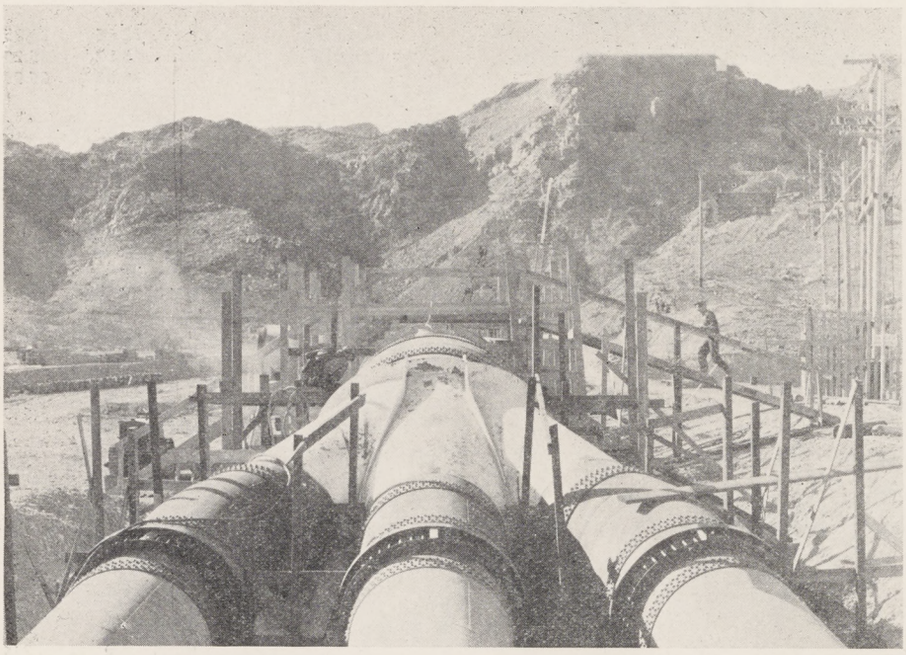
BOULDER TRANSMISSION LINE—FRITZ ZIEBARTH

FEATURES	Length-Line Mi.	Period	To Date	Percent
Footings Constructed	237.0	6.0	191.0	80.6
Towers Erected	237.0	8.0	179.0	75.6
Wire Strung	237.0	2.0	156.0	65.8

COMPLETED FEATURES

CANAL, CONDUIT AND SIPHON

CONTRACTOR	FEATURE AND NAME OR SCHEDULE	Length in Miles	Work Started	Work Completed
UNITED CONC. PIPE CO.	LITTLE MORONGO SIPHON	0.13	2-27-34	8-20-34
M.W.D —FORCE ACCT.	FAN HILL COND. & SIPHON	0.32	10-21-33	11-19-34
MORRISON-KNUDSEN CO.	BIG MORONGO & SAN ANDREAS SIPHONS	1.86	2-12-35	9-16-36
GRIFFITH COMPANY	Sch. No. 20-C, 21, 22, 23, 23A	12.79	1-5-35	10-13-36
JAHN & BRESSI Const. Co.	Schedule No. 5	10.15	12-18-34	11-17-36
	TOTALS	25.25		



Construction of the delivery line at the Gene pumping plant and leading to the east portal of the Copper Basin tunnel in the upper right background. The "pants" section in the foreground is similar to the one shown on page 3.

SAFETY
on the Aqueduct

By T. W. OSGOOD
Safety Engineer

Each year 15,000 of this country's workers are killed in motor car accidents which are in no way connected with their employment—according to records of the National Safety Council.

During the four years of aqueduct construction, 43 aqueduct workers *while off duty* have lost their lives in automobile accidents. These accidents have occurred during trips of varying lengths and at various points, on the streets, highways, and roads between Los Angeles and the intake of the aqueduct, a distance of about 300 miles.

In addition to these 43 fatalities, many other workmen have been more or less seriously injured in automobile wrecks, which occurred while these men were not in line of duty on their respective jobs. It must be remembered that these accidents affect not only the men directly involved, but bring suffering and hardships to the families and dependents.

When we consider the much greater time that the 8,500 aqueduct workers spend on the job, as compared with their travel time to and from work, the records definitely indicate that the employees are in much greater danger on the highways than they are on the aqueduct work. This has especially been true when compared with the construction of the 108 miles of tunnels—a class of work which is conceded to be a hazardous occupation.

Safety on the job? Yes! Also remember that all of us cannot emphasize too strongly the need for safety "After the whistle blows".

If you are sincerely interested in reducing this appalling toll, and incidently protecting the lives of yourself and your family, you will maintain your automobile in safe operating condition, and at all times you will drive with due consideration for the safety of life and property.

GOLF MATCHES PLANNED

C. B. White (Accounting), Secretary-Treasurer of the M.W.D. Golf Club, announces that the Club's 1937 series of matches will start on January 17, at Sunset Fields No. 2 Golf Course. Six matches are to be held, one each month at various courses, with a grand prize for low gross and low net for the series. The low net prize will be a matched set of Bobby Jones woods. Low gross, and low net prize for each match, to be announced later. A green fee of $1.25 will be charged for each match, and to be eligible for prizes, players must take part in at least five matches. First green fee must reach the secretary not later than January 13.

Valentine Party Set for Feb. 13

The holidays have come and gone, but the social season is just beginning. To wit: The Employees Association announce *the* event of the year—A Valentine Day Dinner and Dance to which all District and Contractors' employees are most cordially invited.

The gala affair is to be held at 7:00 P. M. on the evening of February 13, at the Oakmont Country Club in Glendale—the location of the very successful employees' party given in May of 1936.

A committee composed of Merrill Johnson, Chairman, and Marjorie Howell, Thelma Jones, Miriam Taylor, Bill Aultman, Charlie Brandt, and B. F. Martin have been appointed to arrange for the party. With promptness and dispatch the said committee have already gone so far as to announce all of the above details at one fell swoop—and have likewise fixed a price of $1.75 per person as entrance fee. (Initiation fee to cover steak dinner with trimmings, 10-piece professional orchestra with vocalist, door prizes—and even the tips for waiters.)

Names of the people in each division and camp who will handle ticket sales will be announced in the next issue of the NEWS. All you have to do now is to start saving your pennies. A big turnout is expected, based on last year's dance which was attended by more than 500 aqueduckers.

This is of course irrelevant and beside the point, but wouldn't this make a swell roller coaster? Actually it's the inclined railway being built for handling materials along the delivery line at the Gene Pumping plant.

NEWS FROM FIELD AND OFFICE

Probably this should have been done at the end of last year, instead of at the beginning of the new one. However, these Odds 'n Ends have been accumulating in the mail basket of the NEWS for some time, so here goes.

Pet hates: (Note: The owners of these pet hates have threatened instant cancellation of their subscription to the NEWS if the idioms ever again appear in its columns.)

Wes Irwin, Office Engineer, Cajalco —Use of the term "bore" instead of tunnel when referring to same. (Ah, well, the tunnels are nearly finished.)

Dorothy Tregoning, Mr. Pontius' assistant in the paymaster's office—Use of the expression "Ye Editor". (Inasmuch as she's the gal that writes the paychecks, that's one "don't" that *will* be observed by Ye Editor.)

Garland Gray, of the Berdoo engineering staff—Use of "none other than" in the caption under a personality picture. ('stoo bad, too, we had such a nice picture of him that we were going to run next issue.)

* * *

Pet peeves, for which the NEWS rightfully and humbly apologizes:

C. "B." White, the golfing impresario of the Accounting Division, whom the NEWS has repeatedly referred to as C. C. White. (For some reason we kept thinking of C. C. Pyle.)

Alan Patten, the "old man of the mountain" (Nov. 10 issue) of the Legal staff, who's name we spelled AllAn PattAn, instead of A-l-a-n PattEn. (Anyhoo—we gave him a built-up).

Another pet peeve just reported to the NEWS.

Dean Tuthill of Banning Tech mumbles to himself every time he reads in these columns that "concrete was poured at such and such a place." The Dean states emphatically that concrete is "placed", not "poured". (The Dean's pet peeve is hereby acknowledged and will be taken under advisement by the editorial board.)

* * *

That being that, we'll now go back to work.

* * *

The stork beat Santa Claus to the household of James W. Davison, engineer at 1000 Palms, arriving at 1:21 A. M., Christmas morning, and leaving a baby daughter. The young lady is named Gretchen Hope Davison.

Aqueduct Temperatures
December 16 to December 31

	Max.	Min.
Div. 1	73°	36°
Div. 2	73°	35°
Div. 3	74°	31°
Div. 4	75°	35°
Divs. 5 and 6	75°	28°

The Metropolitan Water District float in the Tournament of Roses Parade on New Year's Day. The main feature of the float, "The Fountain of Youth," was the thirteen beautiful young ladies who rode on it—one from each of the member cities of the District.

This pleasant looking chap is Oscar Bowers, a riveter on the construction of the delivery line at the Gene Pumping Plant.

Sam Funsett, former superintendent for Broderick and Gordon on the Cajalco tunnels, has been transferred by that contractor to Colorado. He will be general superintendent on the construction of a 15,000-foot water supply tunnel for the City of Denver to be driven near the Moffat tunnel. He left Cajalco on December 29.

* * *

Henry F. Coleman, instrumentman on Division 4, will hereafter occupy the same position on the construction of the transmission lines.

* * *

Referring to Fred Carlton's compilations as to the number of miles of sausage consumed on Division 4, F. W. Cronholm (M.W.D. equipment designer) wants to know if Fred has ever figured out how far the sliced pineapple would have reached if linked together before the cooks chopped them up and mixed them with the cottage cheese.

* * *

Another extra curriculum Christmas activity was the marriage on that day of James Taplock and Frances Havens. Jimmy Taplock is one of the linemen in the Operating Division.

* * *

Miss Beverly Jane McCleery arrived in the household of W. F. McCleery on December 22—weight 6½ pounds. "Mac" is one of the M.W.D. inspectors at Cajalco.

* * *

W. D. Wagner, formerly an inspector on Division 4, has been transferred as an inspector to Division 1.

* * *

Del Laneville, ex-aqueducker and Banning socialite, has hit the trail again. After working for the Aqueduct Construction Co. in Division 3, he has now gone back to Morrison-Knudsen and is located at San Luis Obispo.

* * *

C. E. Seymour, formerly at the Cabazon shaft of the San Jacinto tunnel, has been transferred to Eagle Mt. pump plant as an electrical inspector.

* * *

Old friends of G. C. Pfeffer will be interested in knowing that he is now the proud father of a baby girl born on January 3rd. Pfeffer was one of the old timers on the job, having first worked on the preliminary surveys, later on Division 4, then at San Jacinto and on geological studies. He is now with the Associated Oil Co. in Los Angeles.

Monrovia No. 3 Lining Started

The pouring of concrete lining in Monrovia tunnel No. 3, the longest tunnel on the Distribution Division, was started by the West Construction Company on December 21. Concreting was started at the east portal which opens into San Gabriel Canyon below the Morris Dam. The steel lining forms being used, were moved across the canyon on a cableway from the portal of Monrovia No. 1, located on the east bank of the canyon. Monrovia tunnels Nos. 1 and 2 are also being constructed by the same contractor, the placing of the lining having been completed in these tunnels on December 3. By January 2—561 lineal feet of lining had been placed in tunnel No. 3.

Excavation of Monrovia No. 3 has been carried on from the west portal in Monrovia Canyon, and from an adit in Fish Canyon, headings being driven east and west from the adit. The heading east of the adit was holed through on October 15, 1936, and excavation at the west heading was discontinued on December 20, to avoid conflicting operations with the concreting being handled from a batching plant in Fish Canyon. The tunnel is 32,105 feet long, and 1161 feet remain to be excavated. This remaining section will all be driven from the west portal. George Baker is the District's resident engineer on this, and all other distribution tunnels.

The West Construction Company used this method of moving steel tunnel lining forms across San Gabriel Canyon, from the west portal of Monrovia tunnel No. 1 to the east portal of Monrovia No. 3, on the distributing system.

Who's Who On the Aqueduct

F. T. Hillman

C. E. Sides

R. A. Crowell

F. T. HILLMAN

Chief Engineer, Winston Brothers and Crowell

Known as "Tom" Hillman on the job. . . . Born in Des Moines, Iowa, November 13, 1882. . . . Attended Highland Park College in Des Moines. . . . 1904-1907, railroad work and lumbering. . . . '07-'11 Northern Pacific Railroad as draftsman and resident engineer. . . . 1911-15 Locating Engineer for Canadian Northern Railway, and Division Engineer of Construction in Ontario. . . . Assistant Engineer of Maintenance, Soo Line, Duluth, 1915 to 1917. . . . '17-'20 Engineer of construction for Northern Pacific Railway. . . . '20-'21, Chief Engineer of Bull Mt. Coal and Realty Co., Billings, Montana. . . . 1921-24, highway construction, bridge design, bridge engineer, and construction engineer in Montana, Idaho, North Dakota and Minnesota. . . . 1924 to date with Winston Brothers. Construction engineer and superintendent on South American railroad construction, Diablo Dam, Cle Ellum Dam in Washington, and M.W.D. Aqueduct construction since 1933. . . East Iron Mt. tunnel, and now building Intake and Gene pumping plants. . . . Is married and has three sons, two of whom are engineers. . . . Lists football, baseball, and hunting as his hobbies.

C. E. SIDES

Superintendent Cabazon Shaft, San Jacinto Tunnel, M. W. D.

Initials don't tie up with nickname, which is "Tim." Born in Webb City, Mo., February 1, 1884. . . . Attended Missouri School of Mines. . . . Has had more than 30 years of mining, tunneling, and general construction experience in various parts of the world. . . . 1906-1908 with Chile Copper Company in Chile, S. A. . . . Ray Cons Copper Co., Ray, Arizona, 1908-12. . . . Isle of Cyprus on mining development of property later known as Cyprus Mining Co. 1912-1924. . . 1915 to 1918, Utah Copper Company, Bingham Canyon, Utah. . . . 1918 returned to Isle of Cyprus and was there for more than ten years. Started to work for M.W.D. at Berdoo, September 11, 1933. . . . Is married.

R. A. CROWELL

Superintendent, Winston Brothers and Crowell, Intake and Gene Pumping Plants.

Is a native son, born in Pasadena, Calif., on March 1, 1907. . . . Graduated in Civil Engineering from the University of Washington, Class of 1929. . . . With general contracting firm of Wm. C. Crowell since 1930, in charge of general building construction and as office engineer. . . . Some of the buildings constructed by this firm during this period have included campus buildings at the California Institute of Technology, Pasadena Civic Auditorium, and the Anaheim Union High School. . . . Has been Superintendent for Winston Brothers and Wm. C. Crowell on the M.W.D. Intake and Gene pumping plants since December, 1935. . . . Is married and has one son.

AQUEDUCT TERRITORIES HAVE COLORFUL HISTORY

It's an interesting fact that although much of the area in which the aqueduct is located is desolate and uninhabited, these same regions have a richer and more colorful history than most fertile and densely populated territories. For example: The town of Earp, on the river end of the big job, takes its name from Wyatt Earp—the famous two-gun peace officer of the "Wild West" days. At one time he lived in the vicinity and prospected in the neighboring mountains. At Cajalco, the other end of the main aqueduct, crews excavating borrow pit materials have dug up more than 20 metates, stone bowls or "squaw bowls" used by some ancient peoples to grind their corn.